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Sub A 4
We Claim:

A freeze control system for a spa for maintaining the temperature of the water inside the spa and the spa's associated piping above the freezing level, comprising:

- A. a heating element for heating the water,
- B. at least one pump for pumping the heated water,
- C. a first sensor for detecting the temperature of the water in the spa tub,
- D. a second sensor for detecting the temperature of the ambient air around the spa's equipment, and
- E. a computer programmed to process signals generated by said first sensor and said second sensor, wherein said computer selectively activates and deactivates said heating element and said at least one pump.

- 2. A freeze control system as in Claim 1, wherein said computer comprises computer components, wherein said second sensor is mounted so as to be relatively unaffected by heat generated by said computer components.
- 3. A freeze control system as in Claim 1, wherein said computer comprises computer components, wherein said second sensor is mounted so as to be affected by heat generated by said computer components.
- 4. A freeze control system as in Claim 3, wherein said computer programming comprises a correction factor to account for the heat generated by said computer components.
- 5. A freeze control system as in Claim 1, wherein said computer is programmed to start and run said at least one pump for a predetermined period of time at intervals based on the temperatures reported by said second sensor.

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A freeze control system as in Claim 1, wherein said predetermined period of time is one minute.

7. A freeze control system for a spa for maintaining the temperature of the water inside the spa and the spa's associated piping above the freezing level, comprising:
- A. a heating element for heating the water,
 - B. at least one pump for pumping the heated water,
 - C. at least one air blower for blowing air into the spa tub,
 - D. a first sensor for detecting the temperature of the water in the spa tub,
 - E. a second sensor for detecting the temperature of the ambient air around the spa's equipment, and
 - F. a computer programmed to process signals generated by said first sensor and said second sensor, wherein said computer selectively activates and deactivates said heating element, said at least one pump and said at least one air blower.
8. A freeze control system as in Claim 7, wherein said computer comprises computer components, wherein said second sensor is mounted so as to be relatively unaffected by heat generated by said computer components.
9. A freeze control system as in Claim 7, wherein said computer comprises computer components, wherein said second sensor is mounted so as to be affected by heat generated by said computer components.
10. A freeze control system as in Claim 9, wherein said computer programming comprises a correction factor to account for the heat generated by said computer components.
11. A freeze control system as in Claim 1, wherein said computer is programmed to start and run said at least one pump and said at least one blower for a predetermined period of time at intervals based on the temperatures reported by said second sensor.

12. A freeze control system as in Claim 1, wherein said predetermined period of time is one minute.

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